

A<sup>1</sup> transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compression to send out I frames is performed and compressed image data of I frame is sent out.

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A<sup>2</sup> 5. (Amended) A data transmission control system, [arranged to connect an arbitrary number of data transmission control apparatuses according to claim 3 to the data transmission control apparatuses according to claim 4 over a network, said data transmission control system being further arranged to switch over, at a receiving side, compressed image data to be received at a timing of transmission of image data of I frame, which constitutes compressed images] comprising  
an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and

an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to

said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over;

said data transmission control apparatuses being connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side.

--15. A data transmission control system, comprising:

a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data and control signal to and from said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, as a result of said comparison, the sending of transmission data from external device is stopped by said transmitting/receiving processing unit when the preset designation time is detected;

a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving/processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time

with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

16. A data transmission control system, comprising:

a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image

data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses being connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

17. A data transmission control system, comprising: a plurality of photographing means each utilizing a data transmission control apparatus, having a a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said

current time and these agree with each other, compressed image data of I frame is sent out;

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a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

18. A data transmission control system, comprising:

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a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

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a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses being connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

19. A data transmission control system, comprising:

a plurality of photographing means each utilizing a data transmission control apparatus, for use in a case wherein a plurality of devices for transmitting and a plurality of devices for receiving compressed image data are connected with each other over a network, said system being arranged such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the compressed image data to be received newly, and compressed image data of frame is transmitted within the shortest time to the receiving device;

a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over;  
and

20. A data transmission control system, comprising:

over a network, said system being arranged such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the compressed image data to be received newly, and compressed image data of I frame is transmitted within the shortest time to the receiving device;

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a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and



a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

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21. The data transmission control system according to claim 15, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.
22. The data transmission control system according to claim 16, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.
23. The data transmission control system according to claim 17, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.
24. The data transmission control system according to claim 18, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.
25. The data transmission control system according to claim 19, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.
26. The data transmission control system according to claim 20, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.